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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/031,534 | 03/28/2002 | James R. Beckman | A32500-PCT USA | 6232 |

21003 7590 08/12/2004

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| EXAMINER |
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MANOHARAN, VIRGINIA

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| ART UNIT | PAPER NUMBER |
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1764

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|--|---------------------------------------|--|--|
| <p align="center">Office Action Summary</p> | Application No. 10/031,534 | Applicant(s) BECKMAN, JAMES R. | |
| | Examiner Virginia Manoharan | Art Unit 1764 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-18 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 3 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-18 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Larson et al publication and Albers et al (5,123,481).

The above references are applied for the same combined reasons as set forth at pages 3-4 of the previous office action.

Albers et al '481 is further applied to teach the claimed features such as:

"...a common heat transfer wall in continuous contact with the liquid mixture, wherein the heat transfer wall is adjacent the evaporation chamber and the dew-formation chamber and is capable of providing thermal communication between the evaporation chamber and the dew-formation chamber; " in the apparatus of claim 1; and the claimed "continuous contacting the liquid mixture with the evaporation side of the heat transfer wall " in the process of claim 17.

Claim 3 (recited in terms of structure, e.g., as in the --means for --language, authorized by 35 USC 6th paragraph as long as supported in the spec.), and claim 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant's arguments filed April 15, 2004 have been fully considered but they are not persuasive. Applicant's arguments such as:

" The Larson publication, therefore, fails to teach or suggest the presently claimed "continuous contacting apparatus," e.g., a where the liquid mixture is maintained in continuous contact with the heat transfer wall" and the further argument that". Applicant also incorporates herein the above arguments regarding the failure of Albers (USPN 5,123,481) to teach or suggest a continuous contacting apparatus.." are not considered well-taken.

However, the argued "continuous contacting apparatus" is not an an unobvious subject matter nor is it evidence of criticality in the art. The abstract of Albers et al '481, for example, reciting ".. a continual change in a vapor-liquid equilibrium..."; and the disclosure e.g., at col.11, lines 62-66 reciting "..liquids under municipal line pressure could wet partition 32 a single time with any overflow discharged from device 14 in the same mode, all removed liquid from basin 42 may be returned to the distributors by a single pump.." would at least be suggestive of the argued " continuous contacting apparatus. Compare with the specification definition of "continuous contacting". That is, page 6, lines 28-30 through page 7, lines 1-7 of the specification recites,

"..The term continuous contacting, as used herein, means that the liquid mixture is maintained in continuous contact with the heat transfer wall and a carrier gas after being fed, e.g., without the need for re-applying the liquid mixture onto a portion or sector of the heat transfer wall after the liquid mixture is initially placed onto the heat transfer wall. Furthermore, the movement of the liquid and the gas is not interrupted by

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mixing of the liquids ahead or behind a particular length of the apparatus, e.g., mixing within a particular stage. The continuous contacting apparatus of the present invention, therefore, only requires one pump to feed the liquid mixture, and does not require a plurality of pumps and nozzles for a plurality of stages...”

To combine the above references would have been obvious to one of ordinary skill in the art inasmuch as the Larson publication suggests at p.136, line 19, of “using only single pump”. More than a single pump obviously would simply be a mere matter of additive. The arguments relative to the alternative references to Kusakawa et al and Maisotsenko et al are moot in view of the rejection advanced supra.

Thus, in the absence of anything which may be “new” or “unexpected result”, a prima facie case of obviousness has been established by the art and has not been rebutted.

Unexpected results must be established by factual evidence. Mere arguments or conclusory statements in the specification, applicants’ amendments, or the Brief do not suffice. In re Lindner, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972). In re Wood, 582, F.2d 638, 652, 199 USPQ 137, 140 (CCPA 1978).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manoharan/tgd

August 9, 2004


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 1231 764
8/9/04